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EXAMINER

BLAU, STEPHEN LUTHER

ART UNIT	PAPER NUMBER
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3711

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/606,318

Applicant(s)

GILBERT ET AL.

Examiner

Stephen L. Blau

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
4a) Of the above claim(s) 3-5, 7, 15, 19, 20, 22, 27, 30 and 35 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1, 2, 6, 8-14, 16-18, 21, 23-26, 28, 29, 31-34 and 36 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/25/03.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 3-5, 7, 15, 19, 20, 22, 27 and 30 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 21 May 2004. It is also noted that claim 35 is also directed to a non-elected species and as such has been withdrawn also since this claim is directed to a metal insert and a composite insert has been elected.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Fagot.

Fagot discloses a perimeter weight surrounding a front face to define a rear cavity (Figs. 6-7), a rear cavity insert in the form of a leaf (Ref. Nos. 49, 59) biasly interposed (0015) within a rear cavity so as to create a force against a front face (Figs. 6-7), and an insert is bent at a bend angle that is less than about 95 degrees in the form of the angle between the ends (Fig. 6).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fagot.

Fagot discloses that a leaf may have several points of contact [0044] and a preload [0046]. Fagot does not specifically disclose how those several points of contact would look like but clearly an artisan skilled in the art of using loaded leafs would have selected a suitable contact area in which an entire back surface of the front face is included. In addition, Fagot does not disclose what the angle of the insert is prior to insertion and the preload after insertion but clearly an artisan skilled in the art of would have selected a suitable preload in which prior to insertion an insert has an angle that is

at least 2% larger than the bend angle and an insert exerts a pre-load force against a front face of 0-3000 lbs are included.

Fagot lacks the insert being juxtaposed against substantially the entire back surface of the front face, prior to insertion an insert has an angle that is at least 2% larger than the bend angle and an insert exerts a pre-load force against a front face of 0-3000 lbs.

It would have been obvious to modify the head of Fagot to have an insert having several points of contact against a back surface in the form of the insert being juxtaposed against substantially the entire back surface of the front face in order to provide a preload to places all over the face for a time when a golfer does not hit a ball at a sweet spot on a face.

It would have been obvious to modify the head of Fagot to have an insert having prior to insertion an insert has an angle that is at least 2% larger than the bend angle and an insert exerts a pre-load force against a front face of 0-3000 lbs in order to provide a sufficient pre-load to a back face of a head.

6. Claims 6, 17, 18, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fagot in view of Schmidt or Helmstetter.

Fagot disclose a U-shaped interposed between a rear cavity and sole.

Fagot lacks a sole recess. Schmidt (Fig. 2) or Helmstetter (Fig. 24) discloses a iron having a sole recess. In view of the patents of Schmidt or Helmstetter it would

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have been obvious to modify the iron of Fagot to have a sole recess in order to use the advantages of the preloaded insert of Fagot with irons which have a sole recess.

7. Claims 8-9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fagot in view of Cochran.

Fagot discloses an insert being made of a carbon composite [0041]. Fagot does not disclose what type of carbon is being used but clearly an artisan skilled in the art would have selected a suitable carbon in which a fiber carbon is included.

Fagot lacks a specific gravity of an insert being less than a specific gravity of a body, a specific gravity of an insert being less than 85 % of the specific gravity of a body, a specific gravity of a head being at least about 7 and an insert having a specific gravity less than about 5.0.

It would have been obvious to have an insert being made of a carbon fiber composite in order to utilize a carbon which is known in the art. As such an insert would have a specific gravity less than about 5.0.

Cochran discloses an iron head body being made of steel (Col. 1, Lns. 28-39). In view of the patent Cochran it would have been obvious to modify the iron head of Fagot to be made of steel in order to utilize a head material used for irons. As such a specific gravity of an insert would be less than a specific gravity of a body, a specific gravity of an insert would be less than 85 % of the specific gravity of a body, a specific gravity of a head would be at least about 7 and an insert having a specific gravity less than about 5.0.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fagot in view of Iwata.

Fagot lacks a coefficient of restitution of a head greater than .79.

Iwata discloses an iron head having a coefficient of restitution being greater than .79 (Claim 1). In view of the publication of Iwata it would have been obvious to modify the head of Fagot to have a head having coefficient of restitution of a head greater than .79 in order to increase the hitting distance of head.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fagot in view of Yamada.

Fagot lacks an insert being a laminated sheet of one or more layers. Yamada discloses a sole of a head being formed of one or more layers of laminated sheet using carbon or glass (Col. 2, Lns. 62 through Col. 3, Ln. 10). In view of Yamada it would have been obvious to modify the head of Fagot to have an insert being a laminated sheet of one or more layers in order to use a known method in the art of forming carbon or glass composites.

10. Claims 23-24 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fagot in view of Schmidt or Helmstetter as applied to claims 6, 17, 18, and 21 above, and further in view of Cochran.

See paragraphs above for elements of structure previously rejected by Fagot in view of Cochran.

11. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fagot in view of Schmidt or Helmstetter as applied to claims 6, 17, 18, and 21 above, and further in view of Iwata.

See paragraphs above for elements of structure previously rejected by Fagot in view of Iwata.

12. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fagot in view of Schmidt or Helmstetter as applied to claims 6, 17, 18, and 21 above, and further in view of Yamada.

See paragraphs above for elements of structure previously rejected by Fagot in view of Yamada.

13. Claims 29, 31-32 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fagot in view of Helmstetter.

Fagot discloses an insert being made of a carbon composite [0041]. Fagot does not disclose what type of carbon is being used but clearly an artisan skilled in the art would have selected a suitable carbon in which a fiber carbon is included.

Fagot lacks a set of irons with more than one long iron, a specific gravity of an insert being less than a specific gravity of a body, a specific gravity of an insert being

less than 85 % of the specific gravity of a body, a specific gravity of a head being at least about 7 and an insert having a specific gravity less than about 5.0.

Helmstetter discloses a set of irons with more than one long iron in the form of there being a 35 degree loft iron and a 45 degree loft iron (Fig. 25). In view of the patent of Helmstetter it would have been obvious to modify the head of Fagot to have a set of irons with more than one long iron in order to utilize the advantage of an insert of Fagot for long irons in a set of irons.

It would have been obvious to have an insert being made of a carbon fiber composite in order to utilize a carbon which is known in the art. As such an insert would have a specific gravity less than about 5.0.

Helmstetter discloses an iron head body being made of steel (Col. 3, Lns. 23-29). In view of the patent Helmstetter it would have been obvious to modify the iron head of Fagot to be made of steel in order to utilize a head material used for irons. As such a specific gravity of an insert would be less than a specific gravity of a body, a specific gravity of an insert would be less than 85 % of the specific gravity of a body, a specific gravity of a head would be at least about 7 and an insert having a specific gravity less than about 5.0.

14. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fagot in view of Helmstetter as applied to claims 29, 31-32 and 36 above, and further in view of Iwata.

See paragraphs above for elements of structure previously rejected by Fagot in view of Iwata.


15. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fagot in view of Helmstetter as applied to claims 29, 31-32 and 36 above, and further in view of Yamada.

See paragraphs above for elements of structure previously rejected by Fagot in view of Yamada.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve Blau whose telephone number is (703) 308-2712. The examiner is available Monday through Friday from 8 a.m. to 4:30 p.m.. If the examiner is unavailable you can contact his supervisor Greg Vidovich whose telephone number is (703) 308-1513. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0858. (TC 3700 Official Fax 703-872-9306)

slb/ 9 August 2004


STEPHEN BLAU
PRIMARY EXAMINER